



Office of the Governor

ARNOLD SCHWARZENEGGER
THE PEOPLE'S GOVERNOR



INTERIM SCOPE OF WORK AND PROJECT SPECIFICATIONS

FOR THE

ANGORA FIRE STRUCTURAL DEBRIS REMOVAL LAKE TAHOE, CALIFORNIA

JULY 10, 2007

Prepare By:
Todd Thalhamer, P.E.
California Integrated Waste Management Board
Solid Waste Cleanup Program
1001 "I" Street
Sacramento, California 95826

For:
County of El Dorado
Environmental Management
2850 Fairlane Ct., Bldg. C
Placerville, CA 95667

Version 2.0 – State Contractor Scope of Work

SUMMARY

Per the Executive Order S-09-07, Office of the Governor of the State of California, the California Integrated Waste Management Board (CIWMB) staff has prepared this structural debris removal report for the County of El Dorado, Environmental Management, and CIWMB's cleanup contractor. This document is the first of two documents that treat the removal of the structural debris as a single organized project. A separate but similar document will be prepared for home owners who decide to opt out of the state sponsored cleanup process and perform the structure debris removal on their own. Additionally this document will be consider an interim report until all the supporting documents, such as the site specific health and safety plan, community safety plan, confirmation sampling plan are prepared by CIWMB consultant. The findings, information, and professional opinions are presented in accordance with generally accepted professional engineering methods and waste management strategies. Any questions or comments concerning this report should be referred to Mr. Todd Thalhamer at 916.798.5464 (cell) or by e-mail at tthalhamer@ciwmb.ca.gov. Mr. Thalhamer is a registered Professional Engineer in the State of California.

CONTENTS

Section	Page
1.0 INTRODUCTION	1
1.1 Site Descriptions	3
1.2 Vicinity and Site Maps	4
1.3 Site Characterization	6
1.4 Removal Costs	6
1.5 Known Hazards	6
2.0 PROPOSED CLEANUP	7
2.1 Scope of Work	8
2.2 Work Plan	8
2.3 General Conditions	10
2.4 Safety	11
2.5 Special Provisions	12
2.5 Erosion Control	14
2.6 Materials	16
2.7 Permits	17
3.0 PROJECT COMPLETION	17
3.1 Documentation	18
3.0 LIST OF TABLES	
Table 1. SOW Project Responsibility	2
Table 2. Estimated Debris Volume	6
Table 3. Disposal Matrix for Materials	8
Table 4. Permit Matrix	16
4.0 LIST OF FIGURES	
Figure 1. Site Location Map	4
Figure 2. Site Sampling Location Map	5
5.0 APPENDICES	
Appendix A. Office of the Governor, Executive Order S-09-07	
Appendix B. Right-Of-Entry Permit for Debris Removal on Private Property	
Appendix C. Work Zones for the Angora Debris Removal	
Appendix D. TBA	
Appendix E. Tahoe Regional Planning Agency Temporary Erosion Control Plan	
Appendix F. TBA	

1.0 Introduction

On July 2, 2007, the Governor of the State of California, Arnold Schwarzenegger, issued executive order S-09-07, which declared a state of emergency in El Dorado County as a result of a wildfire (See Attachment A). This order stated that all State agencies with responsibility, regulatory authority or expertise related to recovery efforts in connection with the Angora fire shall cooperate fully and act expeditiously in coordination with the California Resources and Environmental Protection Agencies (Cal/EPA), to facilitate the mitigation of the effects of the fire and the environmental restoration of the Tahoe Basin

The order also states the following:

statutes, rules and regulations, as they apply to the removal, storage, transportation and disposal of hazardous and non-hazardous debris resulting from the fire and other requirements related to necessary restoration and related activities (including, but not limited to, solid waste facility permit requirements and conditions, waste discharge requirements for the storage and disposal of fire-related debris, waste discharge requirements for discharges of waste associated with emergency timber harvesting, prohibitions against discharges or threatened discharges of waste in stream environment zones, waste discharge requirements for emergency construction activities, waste discharge requirements and/or Water Quality Certification for discharges of fill material or pollutants) are hereby suspended to the extent necessary for expediting the removal and cleanup of debris from the fire, and for implementing the Angora Fire Resource Damage Assessment and Restoration Plan. The Secretaries for Environmental Protection and Resources shall use sound discretion in applying this suspension to ensure that the suspension of statutes, rules and regulations serves the purpose of accelerating the cleanup and mitigation of environmental harm, and the restoration of infrastructure damaged in the Angora fire while protecting public health and the environment, and shall maintain a public list of all such waivers and suspensions prominently on their websites. To the extent that it is within their administrative authority and discretion, the boards, departments and offices within the California Environmental Protection Agency shall expedite the granting of other authorizations, waivers or permits necessary for the removal, storage, transportation and disposal of hazardous and non-hazardous debris resulting from the fire, and for other actions necessary for the protection of public health and the environment.

Additionally the order stated that State agencies shall work with local officials to design and implement a comprehensive structural debris removal plan that will treat the removal of structural debris as a single organized project.

The objective of this document is to meet the above requirements and design a comprehensive structural debris removal plan. This document will be for the state

sponsored debris removal and a second document will be prepared for the private land owner who elects not to participate in the state sponsored debris removal. Both documents will require removal contractors to follow a set of specifications to mitigate known hazards and conditions to limit the impacts to the surrounding public, environment, and the national treasure known as Lake Tahoe.

As part of the executive order, the Cal/EPA assigned a number of tasks to agencies and boards in the Cal/EPA umbrella. The California Integrated Waste Management Board (CIWMB) was tasked to design and implement a structural debris removal plan for the Angora Fire in Lake Tahoe, California. The CIWMB will use the Solid Waste Cleanup Program to implement and oversee the structural debris removal. The CIWMB has mobilized its environmental contractor and consultant to begin the removal process from homes sites once the Right-of-Entry Permit for debris removal on private property is signed by the property owner.

The CIWMB has compiled this Scope of Work (SOW) and Project Specifications for the Angora Structural Debris Removal Project (ASDRP). Information related to this project was obtained from the Office of the Governor, Angora Incident, El Dorado County, Environmental Management, a review of the San Diego 2003 fires, and past CIWMB debris removals.

The CIWMB has authorized A.J. Diani Companies (i.e., environmental cleanup CONTRACTOR) to perform the structural debris removal for the County of El Dorado. This SOW will be provided to the County of El Dorado and other agencies for comment and review. Once comments are provided the CONTRACTOR will use this SOW to prepare their Work Plan. The SOW presents the overall removal plan for the state sponsored cleanup. Table 1 outlines agencies and project participants and their responsibilities relative to ASDRP.

Table 1. SOW Project Responsibility

Agency/Company	Contact	Responsibility/Assistance
El Dorado County, Environmental Management	Gerri Silva Ginger Huber <i>Project Managers</i>	On-site compliance, identifying household hazardous waste, community relationships, and county oversight.
El Dorado County, Building Department	Bob Green	Identifying hazards Concrete Structure Issues, Foundation Verification, and Address Establishment
El Dorado County, Department of Transportation	Donaldo Palaroan	Establishment of erosion control devices on county roads and right-a-ways
El Dorado County, County Counsel	Mike Ciccozzi	Legal Counsel for the incident and Right-of-Entry Permit issues
Cal/EPA - Lahontan Water Board	Robert Dodds Mike Plaziak	Local oversight and support Mult Agency Committee Lead for the Structural Debris Removal
Cal/EPA - CIWMB	Bernie Vlach	CIWMB coordination with Cal/EPA and plan development

Cal/EPA - CIWMB, Solid Waste Cleanup Program	Wes Mindermann <i>SWCP Supervisor</i>	Implementation of a Board Item authorizing the debris removal, work orders for removal contractors, and invoicing.
Cal/EPA - CIWMB, Solid Waste Cleanup Program	Todd Thalhamer <i>On-site Project Engineer</i>	Oversight of project, cost control, waste removal, identifying hazards, structural hazards, and project mgmt.
Cal/EPA - Department of Toxic and Substances Control	Adam Palmer Nancy McGee	On-site review and support of issues related to hazardous substances
Cal/EPA – Lahontan Water Board	Bob Dodds	Local oversight and support
Cal/EPA -	TBA	TBA
CAL Fire	Mary Huggins <i>Project Manager</i>	Assist and encourage landowner to meet their responsibility for removing dead and dying trees.
Office of Emergency Services	Paul Jacks	Technical assistant and support with the overall plan and funding expertise the California Disaster Assistance Act
Office of Emergency Services	Melinda Stehr	Technical support for debris removal
Office of Emergency Services	JeriLyn Peterson	Technical support for the disaster
Tahoe Regional Planning Agency	Lil Foster <i>Project Manager</i>	Temporary Best Management Practices
South Lake Refuse	Jeanne Lear John Marchini	Local Waste Hauler and Disposal Consults
A. J. Diani Primary Contractor	Greg Frick <i>Project Manager</i>	Contractor responsible for removing structural debris and waste.
Sukut Construction	Jim Hasal <i>Project Manager</i>	Subcontractor responsible for waste removal
L and B Environnemental	TBA	Subcontractor responsible for waste removal
LFR	James Eisert <i>Project Manager</i>	Consultant responsible for field documentation, foundation verification, ash footprint, confirmation sampling, final reports
Network Environmental Systems, Inc.	David Durst <i>Industrial Hygienist</i>	Development of the Site Specific Safety Plan and Community Safety Plan
Doug Veerkamp General Engineering	Heath Leshner <i>Project Manager</i>	Providing Water Tenders and waste hauling

1.1 Site Description

Over 254 structures were destroyed and 17 were damaged during the 3,100 acre Angora Fire. A potential of 75,000 cubic yards of waste and debris have been identified for

removal. The sites vary in composition, some contain just foundations, ash and metal debris others are partially burned. This debris removal plan will cover all structural debris from the Angora Fire.

1.1.1 Site Ownership

The ownership of each structure debris site varies. Legal authority to enter each site will be handled by the County of El Dorado. No work by the CONTRACTOR will begin on private property unless the property owner signs the Right-of-Entry Permit (See Appendix B). Once the forms are signed debris removal may begin.

1.2 Vicinity and Site Maps

The Angora structure removal sites are located throughout the North Upper Truckee Road, Lake Tahoe Blvd, Boulder Mountain Road, and Tahoe Mt. Road in South Lake Tahoe, California. Figure 1 and Figure 2 provide site details.

Figure 1. Site Location Map (Source Sacramento Bee, July 1, 2007)

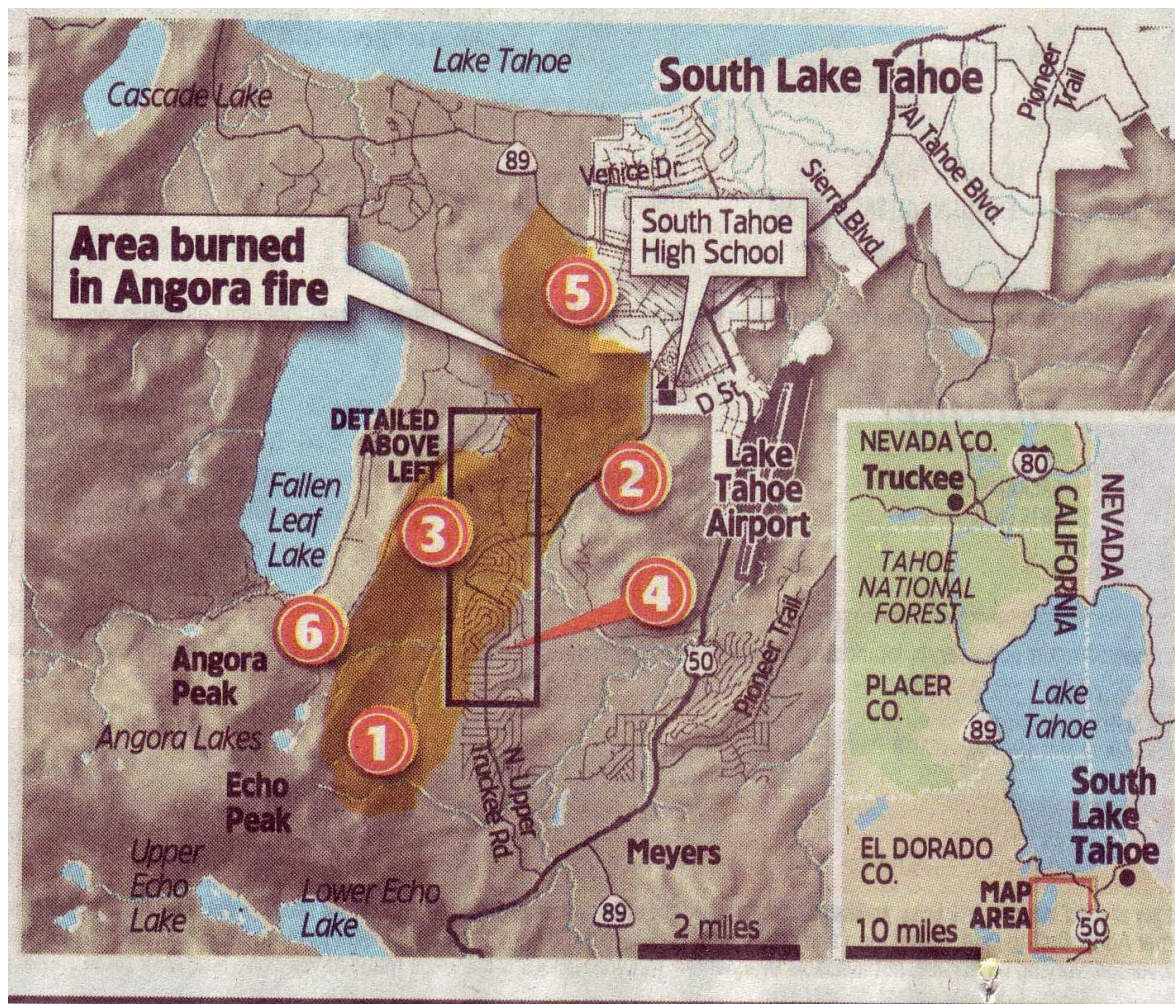
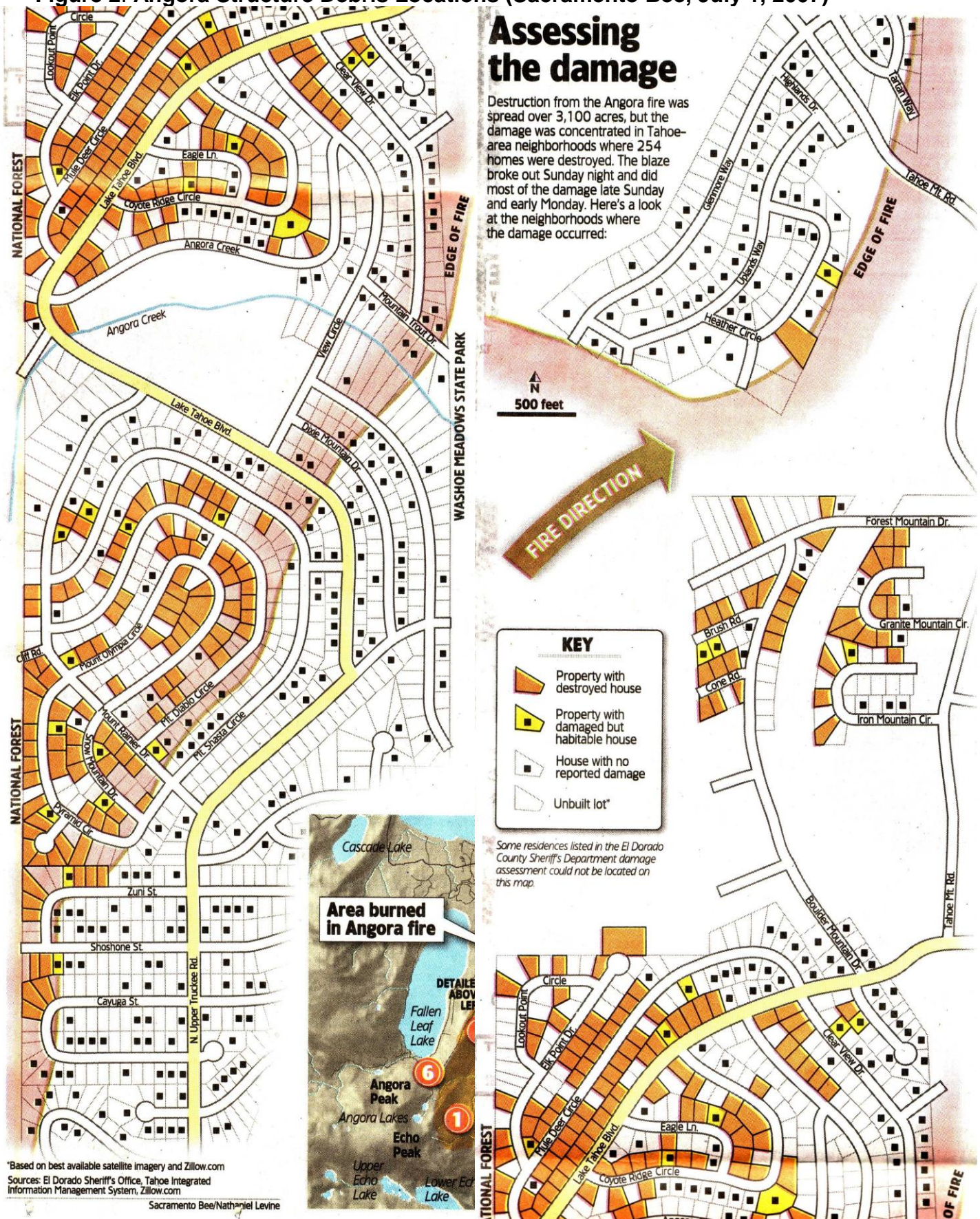


Figure 2. Angora Structure Debris Locations (Sacramento Bee, July 1, 2007)



1.3 Site Characterization

We know that ash and debris from residential structures that are consumed by wildfires contain concentrated amounts of heavy metals, such as arsenic, barium, beryllium, copper, chromium, cadmium, lead and zinc. This concentration of metals has been demonstrated in the Assessment of Burned Debris Report for the Cedar and Paradise Fires, San Diego County, California, December 2003.

Per executive order S-09-07 all the ash and debris may be transported to a local facility as long as the facility accepts the material. Also it is intended that the metal debris and concrete will be recycled to the extent as feasibly possible. Table 2 provides an estimated range of cubic yards of material per house.

Table 2. Estimated Debris per Home Site to be Transported to an Appropriate Facility

MATERIAL	Cubic Yards
Ash	10 to 50
Concrete Debris (Recycle)	20 to 50
Fire Place and Brick	5 to 50
Metal Debris (Recycle)	5 to 25
Other Debris	0 to 100

Based on a count of 254 homes destroyed and 17 damaged, the volume of debris may reach as high as 75,000 cubic yards.

1.4 Removal Costs

An initial cost estimate of \$25,000 per home for removal was used. The overall structural removal project may reach \$7 millions dollars. Removal costs may be as low as \$7,500 for the smaller homes and as high as \$45,000 for large homes with substantial concrete features and foundations. Daily project costs will be tracked and at the end of the project the removal cost will be shared by each home site. The cost per home will be based on the square footage foundation and associated structures and ash footprint.

1.5 Known Hazards

Depending on how much of the structure is present, the known hazards will vary. If just ash, the removal site will contain elevated level of heavy metals. All home sites located where burned trees will pose a fall hazard. Unstable chimneys will also be an extreme fall hazard. There is also a physical hazard (i.e., slips, trips, falls) from exposed glass and metals and unstable chimneys. Additionally the weather will also pose hazards from flash flood to lightning and high winds. Other hazardous material or medical wastes may be discovered during the removal. Utilities, such as electrical, gas, cable, telephone, and sewer, are present and need to be accounted for while removing the debris.

2.0 Proposed Cleanup

The following summarizes the tasks the CONTRACTOR will undertake during structural debris removal.

1. The CIWMB's CONTRACTOR will first inspect all structures at each site and evaluate hazards. Next CONTRACTOR will coordinate with local agencies and resources to determine what materials and tasks are required. **(Note: No work on private property can begin until the property owner signs the Right-of Entry, no exceptions).**
2. The CONTRACTOR then shall provide the posts and address signs to the county to install. The CONTRACTOR will install site project signs and potentially address signs if need and appropriate/emergency erosion control to prevent the immediate issues with rainfall associated with thunderstorms. The CONTRACTOR will load and haul the damage homes and solid waste (e.g., household garbage, wood debris, etc.) to the appropriate landfill and separate and haul white goods and metal debris to accepted facility for recycling. Dust emissions during all phases of the demolition will be controlled via a water spray.
3. The CONTRACTOR will begin work on the destroyed home sites. The CONTRACTOR will first determine if the chimney poses a safety risk. If a risk is determined the chimney will be taken down with proper dust control. The CONTRACTOR will next remove all recyclable metal debris and ash debris with appropriate dust control measures. If feasible, once the metal debris and ash are removed, the concrete foundation or slab will be recycled. The slab or foundation may have to be pressure washed to ensure the concrete is not contaminated. After all debris is removed from the site, the CONTRACTOR will remove 6 to 12 inches of soil from the structural impacted area. Additional excavation may be necessary around the foundation/slab to remove ash and debris. This area may be a combination of the foundation or slab footprint plus areas of structural ash debris from sheds. Once completed, the area will be tested to ensure residual contamination is removed.
4. After all debris is removed the CONTRACTOR will complete the erosion control issues. The erosion control devices shall be installed using the Tahoe Regional Planning Agency best management practice specifications. These specifications as of July 10, 2007 are still being prepared. (See Appendix ??).
5. The CONTRACTOR will also be responsible for removing any other hazardous wastes except for household hazardous wastes discovered during the removal. Household hazardous waste will be segregated and stored on-site by the CIWMB for pickup by the County of El Dorado.

2.1 Scope of Work

Major items of work anticipated in this project may include but is not limited to:

- Installing of project signs indicating removal progress;
- Establishing a operations center and providing site sanitation;
- Removing and disposal of solid waste and demolition debris, including waste tires;
- Segregating and sorting of recyclable metal debris and delivery to recycling facilities;
- Hauling of ash debris to an appropriate facility;
- Recycling concrete debris;
- Providing traffic control signs;
- Site contouring, posting of signs, and erosion protection;
- Cost tracking;
- Installing erosion control devices; and
- Removing trees that pose a safety hazard.

Additionally the CONTRACTOR will provide the following independent third party services for:

- Preparation of a site specific health and safety plan;
- Preparation of a community safety plan;
- Native soils background report
- Field documentation for each home site
- Confirmation sampling
- Final report for each home site

2.2 Work Plan

Table 3 supplies the disposal information to CONTRACTOR to assist in the development of their Work Plan. CONTRACTOR is responsible for contacting the individual companies below and determining if they are available and properly licensed.

Table 3. Disposal Matrix for Materials

Material	Disposal Contact or Facility
<i>Ash and Debris</i>	CONTRACTOR will be responsible for identifying the appropriate facility.
<i>Demolition Debris (Damage Homes)</i>	CONTRACTOR will be responsible for identifying the appropriate facility.
<i>Vegetation</i>	CONTRACTOR will be responsible for identifying the appropriate facility.
<i>Metal Debris</i>	CONTRACTOR will be responsible for identifying the appropriate metal recycler.
<i>Metal Discards (Appliances)</i>	Freon Extraction is REQUIRED for refrigerators. Check with above metal recyclers to determine if they are in compliance

	with the Metallic Discard Act. Note: Furnaces shall be checked for asbestos before disposal.
<i>Vehicles and Trailers</i>	Vehicles and/or trailers that <u>did not sustain</u> damage or vehicles and/or trailer that sustained minor damage will be left on the property. These vehicles and/or trailer may be moved by the CONTRACTOR to complete the debris removal.
<i>Burned Vehicles and Trailers</i>	If a vehicle or trailer has been burned, the vehicle or trailer will be treated as metal debris for rapid disposal. The CONTRACTOR shall ensure all the fluid has been removed from the vehicle and/or trailer before transport. All fluids from the vehicle and/or trailer shall be properly collected and disposed.
<i>Tires</i>	CONTRACTOR will be responsible for identifying the appropriate tire hauler.
<i>Hazardous Waste</i>	CONTRACTOR will be responsible for identifying the appropriate facility.
<i>Household Hazardous Waste (HHW)</i>	<u>Unlikely.</u> The County of El Dorado has performed a HHW sweep of the impacted area. If HHW is discovered the HHW will be segregated by the CIWMB and/or the CONTRACTOR to a temporary on-site storage. As necessary the County of El Dorado will collect and transport HHW to the County facility @ no charge to the CIWMB and or CONTRACTOR.
<i>Dead Animals</i>	If dead animals are discovered, they will be disposed of with the ash and debris.
<i>UXO (Unexploded Ordinance)</i>	<u>Unlikely.</u> With the high temperatures from a forested wildland fire the likelihood of discovering any UXO is remote. If UXO is discovered the CONTRACTOR shall notify the CIWMB so proper disposal can occur by the County of El Dorado. Small arms ammo may be found in the damaged homes.
<i>Radioactive Debris</i>	<u>Unlikely.</u> All impacted lots will be screened for radiation before removal. If radioactive debris is encountered, the material will be removed and properly disposed of by the CIWMB and its CONTRACTOR .
<i>Medical Waste</i>	<u>Unlikely.</u> If medical wastes are discovered, they will be properly bagged and transported to the appropriate facility by the CIWMB and its CONTRACTOR. Small quantities of sharps (e.g., needles and illegal drug items) will be removed and disposed of through the CIWMB and its CONTRACTOR. CIWMB Site engineer will use sharp “mail-back” containers provided by CONTRACTOR.

2.2.2 Schedule

Prior to beginning work, CONTRACTOR shall submit a proposed schedule of operation. The schedule may be in a bar chart or CPM format at the option of CONTRACTOR.

2.2.3 Sequence of Operation

Scheduling and coordination of construction activity shall be the sole responsibility of CONTRACTOR within the following limitations:

- The CIWMB and the County of El Dorado will determine which zone the CONTRACTOR will begin work. Tentatively three zones (Zone A, Zone B, Zone C) have been identified. (See Appendix C)
- All work shall be performed between the hours of 8:00 A.M. to 6:00 P.M., Monday through Saturday, unless authorized by the CIWMB engineer and the County of El Dorado. A daily briefing will commence at the operations center at 7:30 AM every day of operation.
- All construction equipment working within the residential zones shall maintain a speed of **15 mph or less**.

2.3 General Conditions

2.3.1 Notices

CONTRACTOR shall notify Underground Services Alert (USA) at least 48 hours prior to any excavation.

CONTRACTOR shall notify the local fire department prior to commencement of work.

CONTRACTOR shall notify the local power provider prior to removal of any damaged structure to ensure the electrical power has been shut off.

CONTRACTOR shall notify CIWMB at least 48 hours prior to commencement of the cleanup project. CONTRACTOR will use caution around all trees. Only trees marked by the CIWMB may be removed.

If CONTRACTOR discovers household hazardous materials, the site superintendent will segregate the material in a safe area and contact the project engineer/manager. The material will be removed by the County of El Dorado, Environmental Management..

2.3.2 Dust Controls

CONTRACTOR shall provide water or dust palliative, or both, to prevent dust nuisance at each site. **Dust resulting from Contractor's performance of the work shall be controlled at all times during this project.**

2.3.3 Waste Load Controls

All loads shall have a tracking system to indicate material leaving the site.

All loads shall be wetted down before leaving the site. All loads shall be covered with a tarp; this includes metal debris. Concrete loads are exempt from a tarp provided the loads are wetted prior to leaving. If concrete loads generate dust, then the loads must be wetted and tarped.

2.3.4 Cost Controls

CONTRACTOR and the CIWMB Engineer shall update cost of the removal on a daily basis. The CONTRACTOR will be responsible for establishing a daily cost tracking spread sheet.

2.3.5 Traffic Control

At a minimum the CONTRACTOR shall post "Construction Ahead" signs 300 feet in both directions of work zone to warn vehicle traffic of the removal work. Safety cones shall be placed along the work area to control site vehicle traffic.

2.3.6 Equipment Controls

All removal equipment supplied by the CONTRACTOR should have glass enclosures and weigh less than 65,000 lb. The goal is to use equipment that minimizes the impact to the local roadway while completing the removal. For example, excavators should be smaller or equal to a 325 Caterpillar or equivalent and front end loaders should be small or equal to a 950 Caterpillar or equivalent.

2.3.7 Pavement and Drainage Projections

The CONTRACTOR at all times will protect the edge of pavement and county drainage features as feasibly possible.

2.4 Safety

The CONTRACTOR shall, at all times, operate equipment and perform labor in a safe manner to ensure the safety of its employees and the public. CONTRACTOR must pay particular attention to operations around local road and take the necessary precautions. CONTRACTOR must note the number of power lines crossing the site, dead trees, chimneys, and all underground utilities.

The CONTRACTOR shall employ a third party industrial hygienist to develop a site specific health and safety plan for the entire operation for the State Sponsored Removal and a Community Safety Plan.

In addition to site specific plan, CONTRACTOR will designate eating areas and supply a hand and eye washer and mobile sanitary facilities for each project site.

2.4.1 Worker Safety

Give the ash contains elevated levels of heavy metals; an exclusion zone will be setup around the contaminated area during removal. All personnel entering this area will be initially required to wear level "C" protective attire. This level may be down graded based on industrial hygiene air sampling.

2.4.2 Industrial Air Monitoring

The CONTRACTOR shall hire an independent third party, certified industrial hygienist to perform air monitoring for the duration of the project or until the industrial hygienist determines the site air monitoring may cease.

2.5 Special Provisions

2.5.1 Appliance Recycling

CONTRACTOR or their subcontractor shall provide for removal and disposal of material, which may require special handling such as various automobile or appliance components.

Materials that must be removed from appliance and vehicles prior to crushing, baling or shredding for recycling include:

- Chlorofluorocarbons (CFCs) and hydrofluorocarbons (HCFCs) used as refrigerants.
- Polychlorinated biphenyls (PCBs) known to be contained within motor capacitors and fluorescent light ballasts.
- Used oils as defined in Article 13 of Chapter 6.5 of the Health and Safety Code (includes lubricating fluids, compressor oils, and transmission oils).
- Sodium azide canisters in unspent automobile air bags.
- Antifreeze in coolant systems.
- Mercury that may be found in thermometers, thermostats, barometers, electrical switches, and batteries.

The CONTRACTOR shall maintain accurate records detailing the removal and disposal operations involving all such materials, and shall provide the Engineer with all manifests and/or documentation pertaining to the work.

2.5.3 Potential Earthwork

No more than 50 cubic yards of clean soil will be place on any one site with out written authorization from the County of El Dorado and the CIWMB engineer. If fill material is necessary the soil shall be placed in thin lifts. Lifts shall not exceed 8 inches uncompacted and be applied within 3 percent of optimum moisture content or as directed by the Engineer. The lift shall be compacted with a target compaction of 90 percent of the maximum dry density as determined by ASTM D 1557.

2.4.5 Project Signs

Notification Sign (TBA- minimum of 2)

The sign shall consist of 2-foot by 4-foot sheet of 3/4-inch-thick plywood or smooth fiberboard painted with at least two coats of water-based white paint. All surfaces and edges shall be sanded and painted to produce a homogenous surface free of blemishes and color variations.

Posts supporting the sign shall consist of one 4-inch by 4-inch wood post or equal with length sufficient to place in a 5-gallon pail with concrete.

Lettering shall conform to the following:



Address Sign (County of El Dorado)

A total of (TBA – max 264) reflective aluminum signs will also be required. The sign dimension should be 6 inches in width and 24 inches in height. The background shall be a reflective green and all the text shall be white. The County of El Dorado will reestablish all address. Each sign shall be mounted on a steel post. The numbering for the address shall be at minimum of 4" in height. An example is provided below.



Site Sign

A total of (TBA – max 264) white signs will also be required. These signs will be used for the coordination of the project with the various agencies. During the project each phase or agency issue will be signed off on the sign to indicate progress. Each sign will be 12 inches is width and 18 inches in height. The background shall be white and all the text shall be black. A sample is provided below.

2.5 Erosion Control

Erosion control for this project is critical. Lake Tahoe's rain season begins on July 1 and at times rain fall can be heavy due to thunderstorms. Prior to the removal of the structure some erosion control will be necessary to prevent the migration of contaminates off site. Work may consist of installing silt fences, installing erosion control, and other work necessary for improving site stability. Erosion control shall be performed in accordance with these specifications and as directed by the Engineer. Additional erosion specifications will be provided by the Tahoe Regional Planning Agency.

2.5.1 Materials

2.5.1.1 – Reserved for Tahoe Regional Planning Agency (TBA)

2.5.1.2 Erosion Control Blanket—Erosion control blanket is a carpet-like material manufactured for the purpose of holding the soil and seed in place on steep slopes. It consists of organic, biodegradable mulch, such as straw, curled wood fiber, coconut fiber, or a combination of these materials. It is commercially manufactured and delivered to the site in rolls. These materials are evenly distributed on or between photodegradable polypropylene or biodegradable natural fiber netting.

2.5.1.3 Anchors—Anchors shall be any device recommended by an erosion control blanket manufacturer for securing the erosion control blanket to the soil surface. Anchors are also any metal or wooden stake that is appropriately used to secure straw bales or silt fences when used for sediment control structures.

2.5.1.4 Netting—Netting shall be biodegradable paper, plastic, jute, cotton netting manufactured for the purpose of securing straw mulch to the soil surface. The netting material shall be approved by the CIWMB staff prior to its installation.

2.5.2 Erosion Control—Work shall consist of furnishing and applying erosion control materials. The work includes proper material handling, area preparation, proper application of the erosion control materials and structures, and stand maintenance for the areas shown on the Plans.

2.5.2.1 Soil Preparation—Soil preparation shall include all work necessary to prepare designated areas to receive the erosion control materials. Soil preparation work shall be performed under favorable weather and soil moisture conditions as determined by accepted local practice so as to preclude excessive soil compaction.

2.5.2.1 Seeding—Seed shall be applied either mechanically in a dry condition or with hydraulic seeding equipment, at the option of the Contractor. The seed shall be distributed uniformly throughout the seeded area by hand. The basic seed mix will be TBA or equivalent.

2.5.2.3 Silt Fence—Install silt fences as directed by the engineer. Six inches of the fence should be buried in a trench along the base of the fence. The posts shall be spaced a maximum of 10 feet apart and driven into the ground a minimum of 18 inches. Sediment shall be removed from the up-slope side of the fence when it reaches 1/3 the height of the fence.

2.5.2.4 Erosion Control Blanket—Install Erosion Control Blankets as directed by the engineer. Starting at the top of the slope, anchor the blanket in a 6-inch trench, backfill, and securely tamp the backfilled soil. Unroll blanket down-slope overlapping parallel and subsequent blankets a minimum of 3 inches. Secure the blankets with anchors along the overlaps and place a minimum of 2 to 3 anchors per square yard. The Contractor shall determine if more anchors are required and shall be responsible for installing the erosion control blanket so that it will stay in place.

2.6 Materials

Materials shall be placed in accordance with the SOW or as specified by the engineer. The following materials have been identified for the removal:

- TBA Silt Fence
- TBA Straw bundles
- TBA Erosion Control Blankets
- TBA cubic yards of class II road base or equivalent
- TBA of grass seed

Quantities and location of the materials will be determined in the field by the engineer.

2.7 Permits

To provide an understanding of the permits necessary for CONTRACTOR to obtain for the project, Table 4 is presented.

Table 4. Permit Matrix

<i>Permit and Agency</i>	<i>Responsibility</i>	<i>Contact/Comments</i>
<i>Site Authorization Right-of-Entry</i>	County of El Dorado	Prior signatures by property owners will be required before work
<i>California Environmental Quality Act-</i>	Not Applicable	Emergency work as describe in Executive Order S-09-07
<i>1601 Stream Alteration, Dept. of Fish and Game (DFG)</i>	Not Applicable	Scope of Work does not include work in the stream bed. If material need to be removed from the stream, the CIWMB will contact DFG
<i>Storm Water Pollution Prevention Plan-RWQCB</i>	Not Applicable	Exempt per Executive Order S-09-07, however Best Management Practices will be required.
<i>Grading</i>	Not Applicable	Soil removal will be kept to a maximum of 50 cy per home
<i>Road Encroachment</i>	CIWMB and /CONTRACTOR	Emergency work
<i>Traffic Control</i>	CONTRACTOR shall supply	A minimum of two orange construction warning signs "Construction Ahead" and cones. Additional control device may be necessary

		based on location
<i>Asbestos Notification</i>	Not Applicable	Exempt per Executive Order S-09-07. Also, residential buildings having four or fewer dwelling units are exempt from the notification process.
<i>Demolition Permit</i>	County of El Dorado	CONTRACTOR will obtain from the County of El Dorado CONTRACTOR shall obtain the necessary water permit to be used for dust suppression CONTRACTOR shall use the appropriate hauler and disposal facility
<i>Water Permit</i>	CONTRACTOR	
<i>Hazardous Waste</i>	CONTRACTOR	

3.0 Project Completion

The CONTRACTOR will also be responsible for contracting out a third party consultant to prepare site reports. The independent consultant will be tasked with ensuring the removal of the ash and debris was successful from each property. The environmental consultant will perform confirmation sampling. The confirmation samples will be collected from the impacted structure area in native soil, at random locations, and analyzed for heavy metals (California Assessment Manual (CAM) 17 metals TTLC procedures, EPA Method 6010B).

A total of two confirmation samples per impacted area under 2000 sq feet will be collected. Should the area be greater than 2000 sq feet then one additional sample per 1000 sq feet of contamination (e.g., 3 per 3000 sq ft, 4 per 4000 sq ft, etc) will be collected. .

The consultant will also prepare a background soil analysis in the fire area to examine the naturally occurring metal concentrations for comparison with the confirmation sampling.

A cleanup goal of 2 to 3 times background for this structure debris project will be established by the CIWMB and County of El Dorado. (This goal is pending approval from the incident)

3.1 Documentation

The consultant will also be task with designing a report to document each property cleaned up in the state sponsored cleanup. The report will document the removal with photo documentation, foundation square footage, impact from ash foot print (i.e., ash square footage),soil confirmation analysis, and total costs.

Appendix A
Office of the Governor
Executive Order S-09-07





Appendix B
Tahoe Regional Planning Agency
Temporary Erosion Control Plan
BMPs

Assessing the damage

500 feet

Zone A

KEY

- | | |
|---|---|
|  | Property with destroyed house |
|  | Property with damaged but habitable house |
|  | House with no reported damage |
|  | Unbuilt lot* |

Some residences listed in the El Dorado County Sheriff's Department damage assessment could not be located on this map.

Zone B

Zone B

Zone C

*Based on best available satellite imagery and Zillow.com
Sources: El Dorado Sheriff's Office, Tahoe Integrated
Information Management System, Zillow.com

Sacramento Bee/Nathaniel Levine